

Response
Application No. 10/601,663
Attorney Docket No. 030753

REMARKS

Claims 1-10 are pending in the present application. No amendment has been proposed. It is respectfully submitted that this Response is fully responsive to the Office Action dated September 29, 2006.

Allowable Subject Matter:

Applicants gratefully acknowledge the indication that claims 1-4 and 9 have been allowed.

In addition, Applicants also gratefully acknowledge that claim 6 would be allowable if amended to include the features of base claim 5, as indicated on page 4 of the Action. However, for at least the reasons set forth below, it is submitted that claims 5-8 and 10 are allowable.

As to the Merits:

As to the merits of this case, the Examiner relies on the previously cited Landry et al. (U.S. Patent No. 6,732,301)¹ in setting forth the following rejections:

1) claims 5, 7 and 10 stand rejected under 35 USC 102 (e) as being anticipated by Landry et al.; and

¹ This reference was made of record in the first Action dated March 2, 2006

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2) claim 8 stand rejected under 35 USC 103 (a) as being unpatentable over Landry et al. in view of Korhonen (of record).

Each of these rejections is respectfully traversed.

Independent Claims 5 and 10:

Independent claim 5 calls for *a signal receiving unit configured to receive signals off a standard for the serial bus from the signal line; and an identification unit connected to the signal receiving unit and configured to identify the received signals, wherein a self-test is performed based on results of the identification.*

Independent claim 10 calls for *a testing device for transmitting test command signals to an electronic device connected with the testing device by a serial bus including a signal line, said testing device transmitting signals off a standard of the serial bus as said test command signals to the electronic device through the signal line.*

That is, in the present invention signals off the USB standard are generated as the test command signals. For example, as discussed on pages 16 and 17 of the present specification, such kind of signals may include signals having voltages exceeding the serial bus standard, signals different in transmission speed from the serial bus standard, and signals different in protocol from the serial bus standard. In the USB standard, transmission speeds are specified to

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be 12 Mbps, 15 Mbps, and 480Mbps for the low speed and full speed of the USB 1.1, and the high speed of the USB 2.0, respectively. Further, as the minimum unit of command signals and data signals, the format of a packet is defined in the USB standard. Further, as the modulation scheme, NRZI (Non Return to Zero Inverted) is used. In the present embodiment, signals deviating from the above specifications are used as the test command signals. For example, use can be made of signals including repeated data “1” in NRZ (Non Return to Zero) having a transmission speed of a few kbps to 10 kbps, or signals of a few bits.

With regard to independent claim 5, the Examiner asserts on page 2 of the Action that, “Landry discloses an electronic device configured to be connected by a serial bus including a signal line, comprising: a signal receiving unit configured to receive signals off a standard for the serial bus from the signal line (column 3, lines 20-24).”

However, while Landry may disclose in col. 3, lines 20-24 that the USB diagnostic port 104 can interface to the USB bus 124, the USB master 114, the integrated controller 110, the device JTAG 106 and the flash controller 102, it is respectfully submitted that this portion of the Landry reference fails to disclose or fairly suggest that the USB diagnostic port 104 receives signals off a standard for the USB bus 124.

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In addition, the examiner indicates that the "identification unit" in claim 5 of the present application corresponds to the "USB identifier" described in lines 42-43, col. 3 of Landry, but this is not correct. As described in Landry, the "USB identifier" in Landry is a parameter given to the USB diagnostic port 104, but not a device as in claim 5 of the present application.

However, since there is not an "identification unit" in Landry, Landry does not disclose "self test" as called for in claim 5.

With regard to claim 10, the Examiner asserts on page 3 of the Action that Landry discloses the features of claim 10 and directs applicants' attention to the disclosure in col. 3, lines 12-13 and col. 4, lines 31-37 of Landry.

However, according to col. 3, lines 1-19 of Landry:

The USB test tool 126 can be configured to identify the digital system 100 and then to load the proper testing software 128 to test the digital system. Before identification of the digital system 100 by the USB test tool 126, the digital system 100 can appear the same as any other digital system 100. Testing functions can be exclusively provided by the testing software 128 so that testing functions are outside or behind the USB interface. In accordance with the disclosed USB diagnostic system environment, no special equipment is needed to test or debug the digital system 100.

A USB bus 124 serves as an external interface serial bus between the USB test tool 126 and the digital system 100. The digital system 100 provides a USB diagnostic connector 112 coupled to the USB bus 124. The USB diagnostic connector 112 is shown shared by the USB diagnostic port 104 and a USB master 114. Alternatively, the USB diagnostic connector 112 can be dedicated to the USB diagnostic port 104.

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That is, while Landry may disclose that all of the testing functions can be provided in the testing software 128 of the USB test tool 126, which is provided behind or outside the external interface serial bus USB bus 124 as shown in Fig. 1, such that the proper testing software 128 can access and debug the internal logic of an identified digital system 100 via the USB bus 124, Landry fails to disclose or fairly suggest that the USB test tool 126 transmits test control signals that are off a standard of the USB bus 124.

Moreover, the disclosure in col. 4, lines 31-37 of Landry merely states that the JTAG controller 202 of the USB diagnostic port 104 allows for testing of the digital system 100 without interfering with the normal operation of the digital system 100.

As such, it is respectfully submitted that Landry fails to disclose or fairly suggest the features of claim 5 concerning *a signal receiving unit configured to receive signals off a standard for the serial bus from the signal line; and an identification unit connected to the signal receiving unit and configured to identify the received signals, wherein a self-test is performed based on results of the identification*, and the features of claim 10 concerning *a testing device for transmitting test command signals to an electronic device connected with the testing device by a serial bus including a signal line, said testing device transmitting signals off a standard of the serial bus as said test command signals to the electronic device through the signal line*.

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In view of the aforementioned remarks, Applicants submit that the claims are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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